A REGISTER *of* METEOROLOGICAL OBSERVATIONS *made at* BOIS CHÊNE, near Port-au-Prince, Hayti. By Prof. A. Ackerman, National Museum.

(*Read before the American Philosophical Society, July* 15, 1870.)

INTRODUCTORY REMARKS.

All the meteorological observations have been made at "Bois Chêne," S.E. from the harbor of the Capital, at an elevation of 52 meters above the mean level of the sea, with the exclusion of those comprised between the 19th May, 1866, to the 17th November, 1867, which have been made at "Lalue," suburb E of the Capital, country seat of General Lamothe, elevation 57 meters*

The rain-guage used is that of Babinet; its surface of reception is four square-decimeters, so that a centilitre of water represents $\frac{1}{4}$ millimeter of rain in elevation. No building, trees or other obstacles influenced the quantity of received rain, and in order to avoid a correction for evaporation, the water was measured after every rain, except what fell at night, which was registered before sunrise, and without having applied a correction. Elevation of the funnel above ground 3 feet.

The diurnal rain comprises that which fell between 6 o clock A. M. and 6 o'clock P. M., and nocturnal rain that which was received in the remaining twelve hours.

As to the division adopted for the electric phenomena of the atmosphere, the first column reproduces the number of days during which it thundered, and lightning was perceived; however, one phenomenon may have been independent of the other, for example: the thunder was heard in the morning, and the lightning seen in the evening of the same day; this day is noted in the first column. In order to diminish a sort of want of precision in this first column, the last column represents the days of "orages"† which passed above town or its near environs, notwithstanding they have already been counted in the first column. The number of days during which thunder alone was heard, or lightning only perceived, form the successive columns and can only be considered as minima, for the phenomena may have escaped observation, principally lightning at night.

There are days during which thundering lasts for hours, and others when lightnings are so numerous in the evenings as to amount from 30 to 80 in a minute of time, and so for several hours. Particulars about lightnings, on colors, numbers, bifurcations, multiple divisions, distances ascending and descending, &c., &c., have been published in the Moniteur Officiel of the Republic.

Relative to temperature, the thermometers are standard instruments, from the best makers in Paris, divided on the stem into $\frac{1}{5}$ centigrades, so that a tenth of a degree is easily estimated; from time to time the variation of zero-point was verified and the correction applied to the observations.

* "Lalue" and "Bois Chêne" are situated about a mile from the sea shore, and both stations near together, about $\frac{1}{5}$ part of a mile asunder.

† Thunder storm and rain.

The instruments have no frame, and are freely suspended without being shaken by the wind. The absolute minimum is given by a Rutherford spirit therm., and the absolute maximum by Negretti & Zambra's mercurial therm., both Salleron's construction at Paris.

The hourly observations of temperature are performed by "Breguet's thermometrographe horaire No. 6," [See Arago, not. scientif. vol. V, pp. 628–632, and Desains: physique, vol. I, page 247; or Daguin: phys. vol. II, page 546, etc.] This instrument having an arbitrary scale, it was compared with a standard therm. in two constant temperatures, and further checked by numerous simultaneous observations. Breguet's No. 6 acts in the most satisfactory manner, but is much more sensible than other thermometers, so that for the comparisons the instruments were read at a distance with the aid of a cathetometer, and further all the cares taken to obtain correctness, etc.

The exposure of all the instruments is as follows:

A square room of 14 feet a side, has openings towards the four cardinal points, a covered gallery on the South side, is without ceiling, covered with shingles, so that the air circulates freely day or night, from whatever direction the wind is blowing.

On the North side is the window furnished with latticed blinds, painted white, nearly of the same form as prescribed in the "Directions for meteorol. observ." Smithsonian Institution 1860, fig. 2. Elevation of thermometers above ground 10 feet.

The mean daily temperature (and consequently the mean monthly and annual) are the results of the 24 registered hourly observations. The given factor is the co-efficient by which the difference between the absolute maximum and minimum is to be multiplied, and the product added to the minimum, in order to obtain the same mean daily temperature as given by Breguet's hourly thermometrograph.

About ten personal observ. were made daily, with free thermom., psychrom., barometer, winds, clouds, &c., &c., besides the reading of the maxim and minim and the said thermometrograph, thermometer exposed to the sun, to nocturnal radiation, etc.

The second decimal of Fahrenheit degrees does not occur in observation, and is either the result of the mean addition or produced by the reduction of Centigrades into Fahrenheit degrees.

The barometers, Fortin's, had been compared with the barometer at the astron. observatory in Paris, and the makers had given the correction, a constant, for every one. Further, the observations were corrected for capillarity, the column reduced to the temperature of zero degree (32° Fahrenheit) and reduced to the mean level of the sea by the formula of Jamin, Cours de physique de l'école polytechnique, vol. I, end of page 263.

$$X = 18405^{m} (1 + 0.002552. \cos 2 L) \left[1 + \frac{2 (T + t)}{1000}\right] \log \frac{H}{h} ;$$

H & h being reduced to 0° C. X being known the value of H gave the pressure on the level of the sea.

Meteorological Station of Port au Prince.

Extracted from the Registers.

I. Rain and Electrical Phenomena.

1863.	Rain expressed in millim.			Number of days of observed.				Number of thunderstorms over the town or its environs.	
	total.	diurnal	nocturnal	rainy.	thunder & lightning.	thund'r alone.	lightn'g alone,	total.	nocturnal
Aug.	82.50	47.50	35.00	13	2	0	0	1	1
Sept.	128.00	16.25	111.75	17	17	0	2	3	2
Oct.	257.00	85.00	172.00	23	2	0	1	1	1
Nov.	91.50	27.25	64.25	13	1	0	1	1	1
Dec.	18.50	inappr.	18.50	6	0	0	0	0	0
	577.50	176.00	401.50	72	22	0	4	6	5
1864.									
Jan.	0.75	inappr.	0.75	2	0	0	0	0	0
Feb.	123.75	15.50	108.25	14	3	1	2	0	0
March.	110.75	0.00	110.75	11	0	0	0	0	0
April.	212.00	0.00	212.00	15	2	1	2	2	2
May.	260.75	133.00	127.75	17	5	1	1	1	1
June.	59.50	1.50	58.00	7	5	8	0	2	1
July.	108.75	45.25	63.50	14	8	6	0	3	2
Aug.	223.50	152.50	71.00	19	15	1	0	6	5
Sept.	164.25	11.50	152.75	13	20	2	0	9	1
Oct.	170.75	48.00	122.75	13	1	1	0	0	0
Nov.	61.00	17.00	44.00	13	2	0	0	2	2
Dec.	45.50	10.50	35.00	7	2	0	0	1	1
	1541.25	434.75	1106.50	145	63	21	5	26	15
1865.									
Jan.	20.40	4.00	16.40	5	0	0	0	0	0
Feb.	13.00	0.00	13.00	5	0	0	0	0	0
March.	77.75	0.00	77.75	12	0	0	0	0	0
April.	193.50	8.00	185.50	19	2	1	0	0	0
May.	451.25	157.75	293.50	24	17	4	0	4	2
June.	74.75	44.25	30.50	14	8	8	1	3	3
July.	103.00	38.00	65.00	10	7	2	0	4	3
Aug.	129.00	54.00	75.00	15	9	3	1	3	1
Sept.	298.25	131.75	166.50	20	11	8	1	3	1
Oct.	151.50	46.25	105.25	22	13	3	1	3	2
Nov.	158.50	14.50	144.00	9	4	2	4	1	1
Dec.	28.00	0.00	28.00	2	0	1	1	0	0
	1698.90	498.50	1200.40	157	71	32	9	21	13

II. Rain and Electrical Phenomena.—*Continued.*

1866.	Rain expressed in millim.			Number of days of observed.				Number of thunderstorms over the town or its environs.	
	total.	diurnal	nocturnal	rainy.	thunder & lightning.	thund'r alone.	lightn'g alone.	total.	nocturnal
Jan.	57.25	11.00	46.25	9	2	1	0	2	2
Feb.	75.50	12.00	63.50	12	2	2	1	1	1
March.	149.25	5.00	144.25	11	0	0	0	0	0
April.	362.25	inappr.	362.25	22	8	2	1	3	2
May.	226.50	57.00	169.50	18	13	1	1	7	5
June.	146.00	27.25	118.75	17	13	8	1	3	3
July.	150.50	96.50	54.00	15	13	10	1	6	2
Aug.	125.50	8.75	116.75	18	16	4	0	7	7
Sept.	131.50	37.50	94.00	20	20	3	3	6	5
Oct.	110.00	39.00	71.00	20	7	4	1	4	4
Nov.	125.50	83.25	42.25	11	1	0	0	0	0
Dec.	56.25	inappr.	56.25	6	0	0	1	0	0
	1716.00	377.25	1338.75	179	95	35	10	39	31
1867.									
Jan.	51.25	0.00	51.25	4	0	0	0	0	0
Feb.	26.75	5.00	21.75	9	2	0	0	1	0
March.	22 75	2.00	20.75	5	1	1	1	0	0
April.	199.50	14.75	184.75	13	6	0	0	0	0
May.	322.75	60.00	262.75	17	13	2	2	5	3
June.	177.00	28.25	148.75	17	11	7	0	2	1
July.	54.25	41.50	12.75	9	13	1	4	2	0
Aug.	138.75	47.25	91.50	15	15	8	0	4	4
Sept.	52.75	28.25	24.50	7	14	1	6	2	2
Oct.	126.75	3.75	123.00	12	17	3	1	2	2
Nov.	63.25	19.50	43.75	15	7	2	3	2	1
Dec.	41.50	0.00	41.50	3	0	0	1	0	0
	1277.25	250.25	1027.00	119	99	25	18	20	13
1868.									
Jan.	0.50	0.25	0.25	2	0	0	1	0	0
Feb.	143.25	1.25	142.00	17	7	0	3	1	1
March.	86.75	10.00	76.75	15	1	0	0	0	0
April.	102.00	47.00	55.00	15	4	0	0	0	0
May.	317.50	115.00	202.50	25	17	4	1	6	5
June.	52.00	47.75	4.25	14	6	10	0	1	1
July.	42.75	14.00	28.75	13	14	2	12	5	2
Aug.	129.50	43.50	86.00	13	18	3	5	7	6
Sept.	282.00	151.00	131.00	24	21	4	0	16	12
Oct.	118.00	13.75	104.25	14	10	5	3	1	1
Nov.	117.75	29.00	88.75	17	8	1	2	3	2
Dec.	43.00	20.00	23.00	10	0	0	1	0	0
	1435.00	492.50	942.50	179	106	29	28	40	30

III. Rain and Electrical Phenomena—*Continued.*

1869.	Rain expressed in millim.			Number of days of observed.				Number of thunder-storms over the town or its environs.		
	total.	diurnal	nocturnal.	rainy.	thunder & lightning.	thund'r alone.	lightn'g alone.	total	nocturnal	
Jan.	26.75	15.00	11.75	9	1	0	0	0	0	
Feb.	141.00	7.50	133.50	12	2	0	1	1	1	
March.	108.75	5.50	103.25	14	1	1	0	1	1	
April.	123.25	inap.	123.25	17	5	1	0	0	0	
May.	326.25	105.00	221.25	18	15	3	0	7	5	
June.	139.25	64.50	74.75	12	18	4	1	9	4	
July.	97.50	48.50	49.00	16	21	5	0	8	1	
Aug.	265.50	158.25	107.25	22	21	7	0	10	3	
Sept.	267.25	31.25	236.00	22	19	5	2	7	6	
Oct.	151.50	25.00	126.50	18	17	4	4	6	6	
Nov.	28.75	6.00	22.75	7	4	1	3	0	0	
Dec.	6.00	1.00	5.00	3	0	0	1	0	0	
	1681.45	467.50	1214.25	170	124	31	12	48	27	
					a	b	c			Days of electric phenom. a + b + c.
1864	1541.25	434.75	1106.50	145	63	21	5	26	15	89
1865	1698.90	498.50	1200.40	157	71	32	9	21	13	112
1866	1716.00	377.25	1338.75	179	95	35	10	39	31	140
1867	1277.25	250.25	1027.00	119	99	25	18	20	13	142
1868	1435.00	492.50	942.50	179	106	29	28	40	30	163
1869	1681.45	467.50	1214.25	170	124	31	12	48	27	167

The remarkable increase of days of electric phenomena is not yet accounted for. Nothing has been changed in the mode of observing, or hours of observing, and all are personal observations. I may add, that for the last four years agriculture has been neglected in the mountains surrounding the town.

	Mean value of a rainy day in millim.						
	1863.	1864.	1865.	1866.	1867.	1868.	1869.
January,		0.37	4.08	6.36	12.81	0.25	2.97
February,		8.35	2.60	6.30	2.98	8.43	11.75
March,		10.07	6.48	13.57	4.55	5.78	7.77
April,		14.13	10.08	16.47	15.35	6.80	7.25
May,		15.34	18.80	12.58	18.98	12 70	18.12
June,		8.50	5.34	8.56	10.41	3.71	11.60
July,		7.77	10.30	10.03	6.03	3.29	6.10
August,	6.35	11.76	8.60	6.97	9.25	9.96	12.06
September,	7.53	12.63	14.90	6.57	7.53	11.75	12.15
October,	11.17	13.13	6.90	5.50	10.56	8.43	8.42
November,	7.00	4.70	17.60	11.40	4.21	6.93	4.11
December,	3.08	6.50	14.00	9.25	13.83	4.30	2.00

The Most Rainy Day of Every Month since the 1st of August, 1863.

	1863.				1864.				1865.			
	Date.	Diurnal or not.	Duration	Millim.	Date.	Diurnal or not.	Duration	Millim.	Date.	Diurnal or not.	Duration	Millim.
January,					31			0.75	12	n		7.00
February,					25	n		27.00	4	n		9.00
March,					16	n		58.00	23	n		24.00
April,					20	n	130 min.	58.00	23	n		40.00
May,					4	n		62.00	25	d and n	24 hours.	142.00
June,					28	n		43.00	20	d and n		22.00
July,					16	n		30.00	9	n		33.00
August,	3	d	32 min.	32.00	24	n		46.75	15	n		36.00
September,	18	n		37.75	3	n		35.00	24	n		80.00
October,	12	n		38.00	4	n	4 hours.	62.00	27	n		42.25
November,	2	n		17.50	25	d		13.50	21	d and n		59.25
December,	8	n		8.00	23	n		17.50	1	n		28.00

THE MOST RAINY DAY OF EVERY MONTH SINCE THE 1ST OF AUGUST, 1863—*Continued.*

	1866.				1867.				1868.				1869.			
	Date.	Diurn'l or not.	Duration	Millim.	Date.	Diurn'l or not.	Duration	Millim.	Date.	Diurn'l or not.	Durat'n	Millim.	Date.	Diurn'l or not.	Durat'n	Millim.
January,	17	n		17.25	7	n		34.75	19	d	1	0.25	28	d		7.50
February,	26	n	30 min.	23 75	9	n		12.00	26	n	135 min.	38.00	28	n		67.00
March,	31	n		36.75	14	n		15.00	12	n	45 min.	15.00	17	n		44.75
April,	1	n	105 min.	58.00	23	n		58.00	11	n	105 min.	36.00	9	n		60.00
May,	17	n		56.50	9	n		73.50	17	n	120 min.	57.00	9	d & n		134.00
June,	12	n		65.50	9	n		72.50	9	d	55 min.	13.00	22	d		*60.00
July,	15	d & n	4 h. 30 m.	48.00	4	d & n		31.50	3	n		11.00	29	n		20.00
August,	30	n	2 h.	23.25	22	n		33.25	22	n	55 min.	47.00	19	d & n		34 00
September,	2	n	1 h.	26.00	7	d		19.25	17	d	120 min.	64.00	13	n		72.00
October,	31	n		21.75	6	n		33.75	18	n		61.25	8	n		52.00
November,	25	d	3 h. 30	86.75	10	d	135 min.	16.00	7	d & n	90 min.	35.75	12	n		14.75
December,	21	n	2 h. 30	22.00	15	n		22.25	18	d		10.50	2	n		4.00

* Rain and hailstones.

Temperature.

	1864.							1865.						
	Mean monthly.	Monthly mean of minim.	Monthly mean of maxim.	Lowest minim.	Highest maxim.	Mean amplit'd.	Extreme amplit'd.	Mean monthly.	Monthly mean of minim.	Monthly mean of maxim.	Lowest minim.	Highest maxim.	Mean amplit'd.	Extreme amplit'd.
	°							°						
Jan.	75.74							77.48						
Feb.	75.38							75.56						
March.	76.82							77.90						
April.	78.35							78.26						
May.	77.54							79.95						
June.	81.60							81.78	°	°	°	°	°	°
July.	81.86							82.10	73.58	92.12	71.24	95.00	18.54	23.76
Aug.	80.87							81.94	73.58	91.04	69.80	97.34	17.46	27.54
Sept.	81.14							78.89	71.60	88.34	67.64	92.30	16.74	24.66
Oct.	80.42							79.88	71.96	88.34	68.54	91.04	16.38	22.50
Nov.	77.45							77.42	70.70	86.00	68.36	90.14	15.30	21.78
Dec.	75.65							77.10	68.00	86.00	65.12	88.88	18.00	23.76
	1866.							1867.						
	°	°	°	°	°	°	°	°	°	°	°	°	°	°
Jan.	74.93	66.38	84.02	56.84	88 34	17.64	31.50	75.08	66.02	85.82	59.90	90.50	19.80	30.60
Feb.	77 00	68.18	86.54	63.68	89.96	18.36	26.28	76.50	66.56	87.80	61.88	91.04	21.24	29.16
March.	74.94	66.92	83.12	60.08	88.88	16.20	28 80	77.60	68.90	89.24	64.76	95.00	20.34	30.24
April.	77.10	68.54	85.64	66 38	89.60	17.10	22.22	79.55	70.52	90.68	67.64	95.36	20.16	27.72
May.	79.12	68.54	86.00	68.36	91.40	17.46	23.04	79.56	71.78	88.88	68.00	92.84	17.10	24.84
June.	80.30	72.32	90.32	69.08	95.90	18.00	26.82	80.37	72.50	91.22	68.36	95.00	18.72	26 64
July.	80.96	72.14	89.78	69.08	97.16	17.64	28.08	81.10	73.58	93.56	70.16	98.06	19.98	27.90
Aug.	82.05	73.58	92.48	69.44	98 24	18.90	28.80	81.63	73.22	93.56	70.16	97 70	20.34	27.54
Sept.	79.97	71.96	90.14	69.80	94.64	18.18	24.84	81.38	72.86	92.30	69.80	96.80	19.44	27.00
Oct.	78.92	71.96	88.88	69.80	93.20	16.92	23.40	80.80	69.98	90.68	69.80	96.80	20.70	27.00
Nov.	76.88	69.44	86.18	64.76	90.86	16.71	26.10	77.48	69.80	86.72	61.88	90.86	16.92	28.98
Dec.	75.20	67.28	86.00	59.72	90.32	18.72	30.60	76 30	65.84	88.16	57.20	90.50	22.32	33.30

Temperature—*Continued.*

	1868.							1869.						
	Mean monthly.	Monthly mean of minim.	Monthly mean of maxim.	Lowest minim.	Highest maxim.	Mean amplit'd.	Extreme amplit'd.	Mean monthly.	Monthly mean of minim.	Monthly mean of maxim.	Lowest minim.	Highest maxim.	Mean amplit'd.	Extreme amplit'd.
	°	°	°	°	°	°	°	°	°	°	°	°	°	°
Jan.	76.46	64.94	88.70	56.48	93.20	23 76	36.72	76.60	66.38	88.52	59.36	91.40	22.14	32.04
Feb.	75.92	66.56	87.26	62.24	92.30	20.70	30.06	77.58	68.00	88.11	63.50	92.84	20.11	29.34
March.	76.43	67.64	86.36	62.60	91.40	18.72	28.80	77.27	69.28	86.72	64.22	92.30	17.44	28.08
April.	79.33	68.18	90.32	65.30	96.44	22.14	31.14	81.89	70.77	90.21	66.38	95.54	19.44	29.16
May.	78.87	68.36	89.96	67.10	94.10	21.60	27.00	81.69	71.69	91.01	66.74	97.70	19.32	30.96
June.	81.42	71.78	92.48	68.72	98.06	20.70	29.34	82 40	72.14	93.38	67.46	98.24	21.24	30.78
July.	83 84	75.74	95.36	70.34	100.40	19.62	30.06	81.54	71.65	93.54	68.00	98.24	21.89	30.24
Aug.	82.61	73.22	94.82	68.72	100.40	21.60	31.68	80.61	71.50	90.43	67.82	93.20	18.93	25.38
Sept.	78.71	71.24	89.06	67.64	94.64	17.82	27.00	80.96	71.93	89.85	69.62	93.74	17.92	24.12
Oct.	79.35	69.26	88.34	69.26	92.30	19.08	23.04	80.06	71.55	88.63	68.72	91.40	17.08	22.68
Nov.	76.91	68.90	86.72	61.52	91.40	17.82	29.88	78.19	69.46	88.07	64.04	91.40	18.61	27.36
Dec.	75.83	66.74	87.26	61.70	90.86	20.52	29.16	75.52	65.87	87.33	60.44	91.40	21.46	30.96

Mean Monthly Temper. of 6 years.

	°
January,	76.01
February,	76.32
March,	76.82
April,	79.09
May,	79.45
June,	81.30
July,	81.90
August,	81.63
September,	80.70
October,	79.90
November,	77.38
December,	75.94

Mean Annual Temperature.

	°
1864	78.57
1865	79.00
1866	78.12
1867	78.94
1868	78.80
1869	79.52
Mean annual of 6 years,	78.82

The Lowest and Highest Mean Daily Temperature for Every Month.

	1864.		1865.		1866.		1867.		1868.		1869.	
	lowest.	highest.	lowest.	highest.	lowest.	highest.	lowest.	highest.	lowest.	highest.	lowest.	highest.
January,	73.22	78.44	73.40	80.51	69.44	78.98	72.55	78.17	73.04	79.66	72.36	78.84
February,	72.14	77.90	71.60	78.44	72.23	79.25	74.01	78.44	72.91	79.11	75.36	80.26
March,	73.40	79.70	76.64	80.24	68.54	78.26	75.99	80.76	71.42	79.88	73.45	79.75
April,	75.92	80.42	74.66	80.66	74.12	80.06	77.72	81.67	75.43	84.06	78.16	84.11
May,	73.40	80.42	75.56	83.39	75.56	81.50	76.24	81.05	76.82	81.05	74.70	86.07
June,	77.99	84.99	79.88	85.10	77.90	82.76	76.86	85.59	75.22	85.59	78.63	85.35
July,	78.15	85.32	77.99	84.65	78.08	83.66	78.04	85.95	78.08	86.11	78.06	85.57
August,	77.63	85.10	78.62	86.18	78.08	84.65	74.17	84.92	79.70	86.77	77.88	83.53
September,	78.62	84.11	75.11	81.41	76.82	83.51	76.01	84.20	75.94	81.39	79.26	83.21
Obtober,	74.39	81.86	77.18	81.23	77.02	81.50	78.26	84.38	75.83	82.96	77.76	81.64
November,	74.07	80.45	75.74	79.70	74.06	79.50	73.74	80.92	72.09	79.75	75.88	79.77
December,	72.65	78.25	73.94	80.06	71.06	78.33	71.78	79.88	73.40	77.99	72.63	77.99

Mean Monthly Temperatures for every hour—Year 1868.

	mid-night	h 13	h 14	h 15	h 16	h 17	h 18	h 19	h 20	h 21	h 22	h 23	noon.	h 1	h 2	h 3	h 4	h 5	h 6	h 7	h 8	h 9	h 10	h 11	mid-night
January,	71.24	70.70	69.62	68.72	68.00	67.46	67.28	68.36	73.40	77.00	81.86	84.38	85.64	86.18	86.54	86.18	84.92	82.22	79.16	76.46	75.38	74.30	73.40	72.50	71.24
February,	71.60	70.70	69.80	69.08	68.72	68.18	67.28	68.00	73.58	77.00	80.24	82.40	84.02	84.38	84.20	83.66	83.30	80.42	78.44	77.00	75.92	74.84	73.76	72.86	71.60
March,	72.68	71.96	71.78	71.06	70.52	69.62	68.90	70.52	75.02	78.08	80.24	82.40	83 66	83.66	83.84	83.30	82.40	80.78	78.44	76.46	74.84	74.30	74.12	73.40	72.68
April,	75.38	74.84	74.30	73.58	73.04	72.50	71.42	73.58	79.16	81.86	83.84	85.46	86.90	86.54	86.72	86.18	85.46	82.76	83.30	78.80	77.54	76.82	76.28	75.92	75.38
May,	74.12	73.40	72.68	72.14	71.78	71.42	71.24	76.10	80.06	82.94	84.74	86.00	86.18	85.28	85.64	86.00	84.56	83.84	82.22	79.52	77.72	76.46	75.20	74.48	73.94
June,	77.18	76.46	75.74	74.66	74.12	73.58	73.76	77.72	81 68	84.38	86.54	87.98	89.06	89.60	89.24	88.34	87.44	86.36	84.20	81.50	80.24	79.52	78.80	78.08	77.36
July,	80.78	80.06	79.34	77.90	77.42	77.18	77.00	79.34	82.94	85.64	88.34	90.32	91.58	92.12	91.94	91.40	89.96	88.16	86.00	82.58	81.50	80.60	79.70	78.80	77.90
August,	77.72	77.00	76.28	75.74	75.02	74.48	73 94	77.36	82.04	86.18	88.88	90.32	91.04	90.68	90.86	90.32	89.24	87.62	85.28	82.58	81.14	79.70	78.98	78.26	77.54
September,	74.66	74.30	73.94	77.22	72.86	72.50	71.78	73.40	77.72	81.14	84.02	85.64	86.54	86.18	85.46	85.10	84.56	83.66	80.60	78.44	76.82	76.10	75.56	75.02	74.30
October,	76.28	75.92	75.38	74.66	73.94	73.22	72.14	73.22	77.18	80.78	83.48	85.46	86.72	86.90	86.90	86.18	85.28	84.20	81.14	79.52	78.44	77.54	77.18	76.82	76.28
November,	73.40	73.22	72.68	72.32	71.96	71.06	70.16	70.16	74.30	77.54	80.24	82.40	83.84	84.74	84.38	83.84	83.30	80.96	78.44	76.28	75.20	74.30	74.12	73.58	73.22
December.	72.14	71.96	71.42	70.70	70.16	69.80	68.18	69.08	72.14	76.28	79.52	82.22	83.84	84.56	84.74	83.30	82.40	80.78	77.36	75.92	74.66	73.40	73.04	72.32	72.14
	74.76	74 21	73.58	72.81	72.29	71.75	71.09	73.07	77.44	80.74	83.49	85.41	86.59	86.74	86.70	86.15	85.24	83.48	81.21	78.75	77.45	76.49	75.84	75.17	74.46

Unusual days. Temperature of days entirely rainy.

1867. August 27.	75.02	74 30	74.30	74.84	75.20	75.56	76.28	76.64	74.48	73.94	73.94	74.30	73.76	73.76	73.94	73.94	73.76	73.76	73.40	73.04	72.68	72.68	72.68	72.68	72.32
" September 10.	81.50	80.06	81.32	81 14	81 68	81.86	75.92	74.30	73.22	75.20	77.00	77.36	78.98	78.08	75.74	74.48	74.12	73.40	72.68	73.04	72.68	72.50	72.50	71.96	72.14
1868. June 4.	75.20	75.56	75.56	75.20	75.20	75.02	74.30	73.36	74.48	74.66	75.38	74 12	74.48	75.02	76.46	76.46	76.68	76.28	74.30	74.30	74.66	75.20	75.38	75.74	75.74

Mean Monthly Factors for obtaining the Mean Daily Temperature with the Absolute Maxim. and Minim. only.

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1865	0.5322	0.4452	0.4019	0.4586	0.4698	0.4645	0.4790	0.4792	0.4322	0.4272	0.4429	0.4797	0.4594
1866	0.4803	0.4782	0.5026	0.4473	0.4610	0.4440	0.4404	0.4580	0.4451	0.4064	0.4366	0.4241	0.4520
1867	0.4496	0.4706	0.4580	0.4476	0.4545	0.4265	0.4356	0.4180	0.4363	0.4775	0.4415	0.4627	0.4482
1868	0.4790	0.4562	0.4667	0.4446	0.4829	0.4620	0.4138	0.4410	0.4173	0.4933	0.4549	0.4341	0.4538
1869	0.4626	0.4778	0.4775	0.5753	0.5516	0.4832	0.4503	0.4749	0.5013	0.4878	0.4651	0.5141	0.4975
Mean of 5 years.	0.4807	0.4656	0.4611	0.4747	0.4840	0.4560	0.4438	0.4542	0.4464	0.4584	0.4482	0.4629	0.4613

The above factors have been calculated for every day in the year, and the mean taken for every month.

If the absolute daily maxim. and minim. are taken only, their half-sum will not represent the true mean daily temperature. The following well-known formula will represent it: (Max—Min) × f + min. = mean daily.

Breguet's instrument having given the mean daily temperature by 24 equidistant observations, and the absolute maxim. and minim. having also been observed, the factor f was obtained by the formula.

$$f = \frac{(\text{mean}-\text{min.})}{(\text{maxim.}-\text{min.})}$$

Highest temperature observed since 1859. 100°.40 on the 15th August, 1868, between 0^{h} and 1^{h}.
Lowest do do do 56.48 on the 28th Jan. 1868, at 6 o'clock, A. M.

Greatest difference observed between free temperature and exposed to sun, 22° 32.

Highest temperature exposed to the sun observed, 115° 16, 1866, August 1st., the free temperature being 94°64, at the same time a thermometer with ivory scale, lying on a piece of board, marked 120°.

Greatest difference observed between free temperature and exposed to radiation at night, 10° 45.

MEAN ATMOSPHERIC PRESSURE AT NOON, DEDUCED FROM EVERY DAY'S OBSERVATIONS MADE AT NOON, AND REDUCED AS STATED IN THE INTRODUCTORY REMARKS.

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Mean Annual at Noon.
1865	763.19	764.33	764.09	762.90	761.70	762.82	763.33	761.72	761.14	760.36	761.19	763.06	762.48
1866	4.39	4.74	4.39	3.41	2.09	3.25	3.20	2.35	2.32	0.03	1.41	3.10	2.89
1867	4.14	4.31	3.32	2.76	1.75	2.04	3.07	2.06	2.02	0.83	2.47	3.54	2.69
1868	4.12	3.75	3.62	3.80	2.58	2.99	3.24	2.84	2.07	1.40	1.59	3.80	2.98
1869	3.31	3.50	4.28	3.53	2.36	3.58	3.70	2.63	1.95	0.89	1.80	2.43	2.83
Mean of 5 yrs.	763.83	764.12	763.94	763.28	762.10	762.93	763.31	762.32	761.90	760.70	761.89	763.19	762.77

Mean Annual Barometrical Oscillation, 10.59 m.m.
Greatest oscillation in five years occurred in 1866, 13.94 m.m.

MEAN DAILY VARIATION, 1867, 1866, 1865, FOR EVERY MONTH COMPARED WITH NOON, IN MILLIMETERS.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Max. of A. M.	+ 1.47	+ 1.46	+ 1.28	+ 1.06	+ 0.90	+ 0.87	+ 0.75	+ 1.00	+ 1.08	+ 1.30	+ 1.34	+ 1.53
Minim. of P. M.	— 1.49	— 1.60	— 1.52	— 1.46	— 1.33	— 1.19	— 1.04	— 1.09	— 1.13	— 1.09	— 1.12	— 1.15
Mean Daily Ampl.	2.96	3.06	2.80	2.52	2.23	2.06	1.79	2.09	2.21	2.39	2.46	2.68

Monthly Amplitude of Atmospheric Pressure.

	Highest stand of Barometer.			Lowest stand of Barometer.			millim. monthly amplitude.	Remarks.
	date.	hour.	millimeter.	date.	hour.	millimeter.		
1865.								
Jan.	31	10 h A M	767.19	23	3 h P M	759.61	7.58	
Feb.	23	9½ "	767.33	20	5 "	760.15	7.18	
March.	13	10 "	767.70	24	4 "	760.30	7.40	
April.	21	9 "	767.00	26	4 "	758.91	8.09	
May.	5	9 "	764.83	23	4 "	757.33	7.50	
June.	28	9½ "	764.75	19	4 "	760.40	4.35	
July.	7	9 P M	765.70	5	3 "	761.07	4.63	
Aug.	30	9½ A M	763.75	16	4 "	758.85	4.90	
Sept.	4	8 h P M	764.07	28	5 "	758.73	5.34	
Oct.	31	10 h A M	763.39	2	4½ "	758.00	5.39	
Nov.	20	9½ "	763.85	10	4 "	758.19	5.66	
Dec.	18	9 "	766.59	6	4 "	759.69	7.03	
1866.								
Jan.	12	9¾ h A M	769.10 [1]	26	3½ h P M	760.78	8 32	[1] The highest barom. stand observed between 1863 to 1870.
Feb.	17	9 "	768.80	11	4 "	761.28	7.52	
Mar.[2]	12	9½ "	767,13 [3]	31	3¾ "	762.10	5.03	[2] Mar. 4 days without barom. observations
April.	1	9 "	765.10 [4]	18	4¼ "	760.98	3.92	[3] On some days the max. A M unobserved
May.	6	9½ "	764.36 [5]	25	4¼ "	758 81	5 55	[4] Same remark.
June.	29	10 "	764.75	23	3½ "	760.45	4.30	[5] Same rema. k.
July.	21	10 "	765.07	3	3¾ "	760.49	4.58	
Aug.	6	10 "	764.83	30	3¾ "	758.56 [6]	6.27	
Sept.	8	10 "	764.83	30	1¼ "	755 16	9.67	[6] The lowest stand between 1863 to 1870. Great hurricane U. S. coast.
Oct.	14	9¾ "	762 65	7	4¼ "	757.95	4.70	
Nov.	3	10 "	763.95	6	3¾ "	757.70	6.25	
Dec.								
1867.								
Jan.	28	8¾ h A M	768 06	20	3 h P M	758.74	9.32	
Feb.	1	7 "	767.00	15	4½ "	760.50	6.50	
March.	5	9½ "	766.05	22	4 "	759.85	6.20	
April.	14	9½ "	765.54	22	4 "	759.47	6.07	
May.	12	10 "	763.33	8	4 "	758.60	4.73	
June.	28	9 "	765.86	9	4 "	758.50	7 36	
July.	6	9 "	765.34	30	0½ "	759.38	5.96	
Aug.	11	6½ "	764.75	3	4¾ "	759.64	5.11	
Sept.	30	7½ "	763.81	7	3¼ "	759.82	3.99	
Oct.	1	7½ "	764.62	14	4 "	757.47	7.15	
Nov.[7]	5	7¾ "	766.42	9	3½ "	760.19	6.23	[7] From 23 to 28 Nov. no barom. observat.
Dec.	21	9½ "	766.37	12	3¼ "	760.72	5.65	

Certif. ten pages to be conform to the registers of the Meteorological Station of Port-au-Prince.

Prof. A. Ackerman.